

NAME

ng_frame_relay - frame relay netgraph node type

SYNOPSIS

```
#include <netgraph/ng_frame_relay.h>
```

DESCRIPTION

The **frame_relay** node type performs encapsulation, de-encapsulation, and multiplexing of packets using the frame relay protocol. It supports up to 1024 DLCI's. The LMI protocol is handled by a separate node type (see `ng_lmi(4)`).

The downstream hook should be connected to the synchronous line, i.e., the switch. Then hooks `dlci0`, `dlci1`, through `dlci1023` are available to connect to each of the DLCI channels.

HOOKS

This node type supports the following hooks:

downstream The connection to the synchronous line.

dlciX Here X is a decimal number from 0 to 1023. This hook corresponds to the DLCI X frame relay virtual channel.

CONTROL MESSAGES

This node type supports only the generic control messages.

SHUTDOWN

This node shuts down upon receipt of a `NGM_SHUTDOWN` control message, or when all hooks have been disconnected.

SEE ALSO

`netgraph(4)`, `ng_lmi(4)`, `ngctl(8)`

HISTORY

The **ng_frame_relay** node type was implemented in FreeBSD 4.0.

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BUGS

Technically, frames on DLCI X should not be transmitted to the switch until the LMI protocol entity on

both ends has configured DLCI X as active. The **ng_frame_relay** node type ignores this restriction, and will always pass data received on a DLCI hook to downstream. Instead, it should query the LMI node first.